Application No.: 09/976,559 Amendment dated May 4, 2004

Reply to Office Action of February 18, 2004

AMENDMENTS TO THE ABSTRACT:

Please replace the abstract on page 17 with the following amended paragraph:

The described embodiments of the present invention include a method for forming a radiation detector, including the steps of: forming a A radiation absorption layer is formed on a substrate; forming a A wider bandgap layer is formed on the radiation absorption layer; forming a A passivation layer is formed on the wider bandgap layer; forming a A doping layer is formed on the passivation layer; patterning the The doping layer is then patterned and; driving dopant is driven from the patterned doping layer into the junction layer and the radiation absorption layer to form a doped region; patterning the The passivation layer is patterned to expose the doped region; and forming and an electrical contact to the doped region is formed.

Another described embodiment of the present invention is a radiation detector. This embodiment includes a radiation absorption layer formed on a substrate and a wider bandgap layer formed on the radiation absorption layer. This embodiment further includes a passivation layer formed on the junction layer; a patterned doping layer formed on the passivation layer and a doped region formed by driving dopant from the patterned doping layer into the junction layer and the radiation absorption layer and an electrical contact formed through a via in the passivation layer to provide electrical contact with the doped region.